

REF. 13

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# **WOODLAND LANDFILL II KANE COUNTY, ILLINOIS**

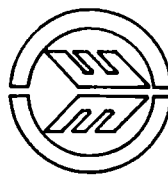
APPLICATION TO THE  
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
TO DEVELOP A NON-HAZARDOUS  
SOLID WASTE MANAGEMENT SITE  
JANUARY 1983

US EPA RECORDS CENTER REGION 5



547991

**FOR  
WASTE MANAGEMENT OF ILLINOIS, INC.  
OAK BROOK, ILLINOIS**



**PATRICK ENGINEERING INC.**  
Geotechnical/Environmental Engineers  
Glen Ellyn, Illinois



Waste Management, Inc.  
3003 Butterfield Road • Oak Brook, Illinois 60521

May 4, 1983

RECEIVED

MAY 6 1983

Env. - D.L.C.  
STATE OF ILLINOIS

Mr. Larry Eastep  
Manager, Permit Section  
Division of Land Pollution Control  
Illinois Environmental Protection Agency  
2200 Churchill Road  
Springfield, Illinois 62706

RE: Kane County - South Elgin/Woodland Landfill II

Dear Mr. Eastep:

This letter transmits two copies of a permit application and supporting documents for a new sanitary landfill site adjacent to, but physically separated from Woodland Sanitary Landfill (08948305, Permit Number 1976-23). The application consists of the following documents:

- |   |           |
|---|-----------|
| 1. Transmittal letter from Patrick Engineering Inc. | 1 sheet   |
| 2. Application Form                                 | 10 sheets |
| 3. Report   | 28 sheets |
| 4. Exhibits   | 42 sheets |
| 5. Appendices                                       | 86 sheets |
| 6. Drawing Index                                    | 1 sheet   |
| 7. Drawings   | 18 sheets |

Although each bound application includes a full set of reduced drawings, we are also including two full sized sets of drawings to facilitate the review. Also enclosed are the required notification letters for your use.

Please note that this landfill is intended to receive both refuse and certain non-hazardous special wastes. Also, please note that the proposed operating schedule is considered the maximum time which the facility may be open and that curtailment of this schedule is anticipated to be allowed within any permit granted. Further, please be advised that the projected source and volume of refuse and the equipment to be used is based on current experience. Refuse volumes may be expected to change with the economy and competitive circumstances; the number and types of equipment to be used would be expected to change with changes in site volume.

Notification Sent  
Per I. E. P. A. Act §39 (c)

MAY 9 1983

DL/NPC

Mr. Larry Eastep  
May 4, 1983  
Page 2

Thank you for your attention to this application. If you have any questions during your review, please feel free to contact me at any time.

Very truly yours,

WASTE MANAGEMENT OF ILLINOIS, INC.

A handwritten signature in cursive script, appearing to read "Dan Nelson", with a long horizontal flourish extending to the right.

Dan Nelson, P.E.  
District Engineer  
Midwest Region

DLN:meg

cc: Ed Aromi  
Tee Forshaw  
Dick Molenhouse  
John Rohr

# **PATRICK ENGINEERING INC.**

## **Consulting Engineers**

346 Taft Avenue  
Glen Ellyn, Illinois 60137  
(312) 858-7050

February 18, 1983

Waste Management, Inc.  
3003 Butterfield Road  
Oak Brook, Illinois 60521

Attention: Ms. Tee Forshaw

Subject: Woodland Landfill II  
Kane County, Illinois

Reference: Patrick Engineering Project No. 110C

Dear Ms. Forshaw:

Delivered herewith are nine copies of our report entitled "Woodland Landfill II, Kane County, Illinois - Application to the Illinois Environmental Protection Agency to Develop a Non-Hazardous Solid Waste Management Site - January, 1983" and five sets of full size (24" x 36") drawings.

Note that the required signatures are needed on page 10 of the permit application.

Please call if you have any questions or desire additional copies.

Very truly yours,

*Daniel P. Dietzler*  
Daniel P. Dietzler  
President

KMB/maf

Enclosures: As noted

Notification Sent  
Per I. E. P. A. Act §39 (c)

MAY 9 1983

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**RECEIVED**

MAY 6 1983

STATE OF ILLINOIS

## INTRODUCTION

The Illinois Environmental Protection Agency (IEPA) took analyzed several Ground Water samples from several locations close to a Landfill near the City of South Elgin. Results of these analysis were compared with IEPA standards. The purpose of this report is to make such analysis and give comments.

Monitor Point No.  
G-101

Date  
2/7/78

At this location ground water contains a very high percentage of Iron (270 PPM) as compared with IEPA ground water standards 0.3 PPM (Table 1). Other pollutants such as Lead .69 PPM, Manganese 27.75 PPM, and R.O.E. 818 are also present. This explains the turbidity and greyish colour of the sample. All these exceed IEPA Standards (Table 1.)

Table 1. Comparison of IEPA Gov't Standards and Sample Analysis No. G-101.

Parameters	IEPA Gov't Standards in PPM	Sample Analysis Reading in PPM
Iron	0.3	270
Lead	.05	.69
Manganese	.05	27.75
R.O.E.	500	818
Sulphate	250	265
Zinc	1.0	1.1

Well  
G-102

Date  
2/6/78

Here again one high concentration of Iron 7.0 PPM, Manganese .69 and R.O.E. 590 (Table No. 2). Sample analysis shows that water is hard and on the alkaline side.

Table No. 2 Comparison of Sample Analysis No. G-102

Parameter	IEPA Standards	Sample Analysis
Iron	0.3	70
Manganese	.05	.60
R.O.F.	500	590
Sulphate	250	180

Well  
G-103

Date  
2/8/78

This site is not as polluted as Well # 1 and # 2.  
Iron and Manganese are just above the maximum  
allowable limits. COD is 51 and it is low.

Table No. 3 Comparison of Sample Analysis No. G-103

Parameter	Sample Analysis
Iron	5.0
Manganese	1.8

Well  
G-104

Date  
2/7/78

Iron, Manganese and Phenolics are not as high as in other  
location but they are still above standards (Table No. 4).

Table No. 4 Comparison of Sample Analysis No. G-104

Parameter	IEPA Standards	Sample Analysis
Iron	.3	6.0
Manganese	.05	.09
Phenolics	.001	.009
Lead	.05	.04

Table No. 5 Comparison of Analysis of Several  
Monitor Points

Monitor	R.O.E.	Iron	Date
S-501	755	.2	21/6/77
G-101	580	.2	"
G-103	275	.5	"
G-104	380	.3	"

At the above mentioned date values of R.O.E. were high. The maximum allowable reading of R.O.E. is 500.

Also the iron content was on the border but is higher.

Well # 1, # 3 and Well # 4 monitored 2/2/77 showed high reading of total dissolved solids. Well # 1 and # 4 showed high reading for Manganese and Iron.

Examination of Well # 1 on 17/1/77 gave very high reading for copper .27 PPM (limit .02); Mercury 0.41 (limit .05) and total dissolved solids 807 (limit 500).

Examination of Well # 3 on 1/12/76 indicated that the water was loaded with dissolved solids 4900 (limit 500 PPM).

### S U M M A R Y

In Summary recent tests conducted on 2/7/78 show very high concentration of Iron, Manganese or Lead in the monitor points G-101, G-102, G-103 and G-104. These readings are several times higher than the maximums set by IEPA. Also, high readings for R.O.E. were recorded for wells G-101, G-102. Monitor Point # G-104 was contaminated with Phenolics (they are usually produced as by-products from chemical manufacturing plants or from oil refining works).

Earlier tests conducted on 21/6/77, to monitor points S-501, G-101, G-102, G-103 and G-104 showed high concentration of Iron from (.2 - .5 mg/l) which is while the maximum set by IEPA was .3 mg/l. R.O.E. reading from 755-275 (IEPA 500).

Tests conducted on well # 1, # 3, and # 4 on 2/2/77 indicated highly dissolved solids. Manganese and Iron available in high concentration. Besides, high copper concentration .27 PPM was recorded in well # 1 on 17/1/77 (while IEPA maximum .02 PPM) and Mercury .41 PPM (limit .05 PPM). Again total dissolved solids 807.

These wells are highly polluted as can be inferred from the above mentioned data. The turbidity and the gray colour of water, and the fact that the water is loaded with dissolved solids e.g. Well # 3 showed on 1/12/76, 4900 PPM, while IEPA limit is 500 PPM dissolved solids are an indication that the possibility of polluting shallow neighbouring ground water is present especially if draw-down from the shallow aquifer is occurring daily.